

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Withdrawn) An isolated cationic cathelin-like peptide having antimicrobial activity and comprising an amino acid sequence:

(Q/R)_{X1}(L/P)SY(K/R)(E/D)AVLRA(V/I)_{X2}_{X3}_{X4}N(E/Q)(Q/R)S(S/L)(D/E)_{X5}NLYRLL_{X6}L(D/N)_{X7}_{X8}PX₉_{X10}(D/E)_{X11}DPX₁₂(T/I)(P/R)K(P/S)V(S/R)F(T/R)VKETVC(P/G)(K/R)_{X13}(T/E)(Q/R)QX₁₄(P/L)EX₁₅CX₁₆FKX₁₇_{X18}G(L/R)VK(Q/R)CX₁₉G(A/T)V(T/I)L(D/N)_{X20}_{X21}_{X22}_{X23}_{X24}(F/L)D(I/L)(N/S)C(N/D)_{X25}_{X26}_{X27}_{X28}_{X29}_{X30}_{X31} (SEQ ID NO:3), wherein X1 is A, V or T; X2 is N, D or G; X3 is G, R, D or Q; X4 is L, I or F; X5 is E, A or T; X6 is Q, E or D; X7 is S, Q or P; X8 is Q, P, R, E or A; X9 is K, T, Q or N; X10 is G, A, M or D; X11 is G, E or V; X12 is N, G or D; X13 is P, T or A; X14 is P, S or L; X15 is Q, L, D or E; X16 is G, D or A; X17 is D, E or K; X18 is N, D or Q; X19 is E, V or M; X20 is E, P or Q; X21 is D, S or A; X22 is T, I, R, A or N; X23 is G, H or D; X24 is S, Y or Q; X25 is S, E or K; X26 is I, D, A or L; X27 is L, Q or N; X28 is S, P, K or Q; X29 is V, F or R; X30 is R, F or K; and X31 is F, A, R or K

2. (Withdrawn) An isolated polynucleotide that encodes a peptide of claim 1.
3. (Currently Amended) A method for inhibiting the growth of a bacterium or yeast comprising contacting the bacterium or yeast with an inhibiting effective amount of a peptide

~~comprising~~ consisting of an amino acid sequence as set forth in ~~selected from the group~~
~~consisting of:~~

~~—— (a) (Q/R)X₁(L/P)SY(K/R)(E/D)AVLRA(V/I)X₂X₃X₄N(E/Q)(Q/R)S(S/L)(D/E)X₅NL
 YRLX₆L(D/N)X₇X₈PX₉X₁₀(D/E)X₁₁DPX₁₂(T/I)(P/R)K(P/S)V(S/R)F(T/R)VKETVC(P/G)
 (K/R)X₁₃(T/E)(Q/R)QX₁₄(P/L)EX₁₅CX₁₆FKX₁₇X₁₈G(L/R)VK(Q/R)CX₁₉G(A/T)V(T/I)L(D/N
)X₂₀X₂₁X₂₂X₂₃X₂₄(F/L)D(I/L)(N/S)C(N/D)X₂₅X₂₆X₂₇X₂₈X₂₉X₃₀X₃₁(SEQ ID NO:3);~~

~~wherein X₁ is A, V or T; X₂ is N, D or G; X₃ is G, R, D or Q; X₄ is L, I or F; X₅ is
 E, A or T; X₆ is Q, E or D; X₇ is S, Q or P; X₈ is Q, P, R, E or A; X₉ is K, T, Q or N; X₁₀ is
 G, A, M or D; X₁₁ is G, E or V; X₁₂ is N, G or D; X₁₃ is P, T or A; X₁₄ is P, S or L; X₁₅ is
 Q, L, D or E; X₁₆ is G, D or A; X₁₇ is D, E or K; X₁₈ is N, D or Q; X₁₉ is E, V or M; X₂₀
 is E, P or Q; X₂₁ is D, S or A; X₂₂ is T, I, R, A or N; X₂₃ is G, H or D; X₂₄ is S, Y or Q;
 X₂₅ is S, E or K; X₂₆ is I, D, A or L; X₂₇ is L, Q or N; X₂₈ is S, P, K or Q; X₂₉ is V, F or
 R; X₃₀ is R, F or K; and X₃₁ is F, A, R or K; and~~

~~(b)——SEQ ID NO:2 from about amino acid 31 to 131.~~

4. (Previously Presented) The method of claim 3, wherein the bacterium is gram positive.

5. (Previously Presented) The method of claim 3, wherein the bacterium is gram negative.

6. (Previously Presented) The method of claim 3, further comprising contacting the bacterium or yeast with at least one antimicrobial agent.

7. (Previously Presented) The method of claim 6, wherein the antimicrobial agent is selected from the group consisting of a β -lactam, novobiocin, polymyxin B, and LL-37.
8. (Previously Presented) The method of claim 3, wherein the contacting is *in vitro*.
9. (Previously Presented) The method of claim 3, wherein the contacting is *in vivo*.
10. (Currently Amended) The method of claim 9, wherein the contacting is by topical ~~adminstration~~ administration.
11. (Withdrawn) A peptide having from about 96 to about 100 amino acids and including a sequence shown in SEQ ID NO:3, wherein X1 is A, V or T; X2 is N, D or G; X3 is G, R, D or Q; X4 is L, I or F; X5 is E, A or T; X6 is Q, E or D; X7 is S, Q or P; X8 is Q, P, R, E or A; X9 is K, T, Q or N; X10 is G, A, M or D; X11 is G, E or V; X12 is N, G or D; X13 is P, T or A; X14 is P, S or L; X15 is Q, L, D or E; X16 is G, D or A; X17 is D, E or K; X18 is N, D or Q; X19 is E, V or M; X20 is E, P or Q; X21 is D, S or A; X22 is T, I, R, A or N; X23 is G, H or D; X24 is S, Y or Q; X25 is S, E or K; X26 is I, D, A or L; X27 is L, Q or N; X28 is S, P, K or Q; X29 is V, F or R; X30 is R, F or K; and X31 is F, A, R or K
12. (Withdrawn) A pharmaceutical composition for therapy of bacterial infections and/or disorders comprising a peptide selected from the group consisting of:
 - (a) a peptide comprising a sequence (Q/R)X₁(L/P)SY(K/R)(E/D)AVLRA(V/I)X₂X₃X₄N(E/Q)(Q/R)S(S/L)(D/E)X₅NLYRLLX₆L(D/N)X₇X₈PX₉X₁₀(D/E)X₁₁DPX₁₂(T/I)(P/R)K(P/S)V(S/R)F(T/R)VKETVC(P/G)(K/R)X₁₃(T/E)(Q/R)QX₁₄(P/L)EX₁₅CX₁₆FKX₁₇X₁₈G(

L/R)VK(Q/R)CX₁₉G(A/T)V(T/I)L(D/N)X₂₀X₂₁X₂₂X₂₃X₂₄(F/L)D(I/L)(N/S)C(N/D)X₂₅X₂₆X₂₇
X₂₈X₂₉X₃₀X₃₁ (SEQ ID NO:3),

wherein X1 is A, V or T; X2 is N, D or G; X3 is G, R, D or Q; X4 is L, I or F; X5 is E, A or T; X6 is Q, E or D; X7 is S, Q or P; X8 is Q, P, R, E or A; X9 is K, T, Q or N; X10 is G, A, M or D; X11 is G, E or V; X12 is N, G or D; X13 is P, T or A; X14 is P, S or L; X15 is Q, L, D or E; X16 is G, D or A; X17 is D, E or K; X18 is N, D or Q; X19 is E, V or M; X20 is E, P or Q; X21 is D, S or A; X22 is T, I, R, A or N; X23 is G, H or D; X24 is S, Y or Q; X25 is S, E or K; X26 is I, D, A or L; X27 is L, Q or N; X28 is S, P, K or Q; X29 is V, F or R; X30 is R, F or K; and X31 is F, A, R or K; and

(b) a peptide comprising a sequence as set forth in SEQ ID NO:2 from about amino acid 31 to 131,

in a pharmaceutically acceptable carrier.

13. (Withdrawn) The composition of claim 12 in a controlled release formulation.
14. (Withdrawn) The composition of claim 12 in a liposomal form.
15. (Withdrawn) The composition of claim 12 in a lyophilized form.
16. (Withdrawn) The composition of claim 12 in a unit dosage form.
17. (Withdrawn) The composition of claim 12 in an aerosol form.
18. (Withdrawn) The composition of claim 12 in a foam.

19. (Withdrawn) A method of alleviating symptoms of a bacterial infection in a subject, comprising administering an effective amount of an N-terminal active fragment of a cathelicidin-derived peptide comprising a sequence as set forth in SEQ ID NO:2; or a peptide comprising a sequence as set forth in SEQ ID NO:3, wherein X1 is A, V or T; X2 is N, D or G; X3 is G, R, D or Q; X4 is L, I or F; X5 is E, A or T; X6 is Q, E or D; X7 is S, Q or P; X8 is Q, P, R, E or A; X9 is K, T, Q or N; X10 is G, A, M or D; X11 is G, E or V; X12 is N, G or D; X13 is P, T or A; X14 is P, S or L; X15 is Q, L, D or E; X16 is G, D or A; X17 is D, E or K; X18 is N, D or Q; X19 is E, V or M; X20 is E, P or Q; X21 is D, S or A; X22 is T, I, R, A or N; X23 is G, H or D; X24 is S, Y or Q; X25 is S, E or K; X26 is I, D, A or L; X27 is L, Q or N; X28 is S, P, K or Q; X29 is V, F or R; X30 is R, F or K; and X31 is F, A, R or K, to the subject.

20. (Withdrawn) The method of claim 19, wherein said administering is selected from the group consisting of: intravenous, intramuscular, intradermal, subcutaneous, intracranial, intracerebrospinal, topical, oral, transdermal, transmucosal and transnasal.

21. (Withdrawn) A method of promoting tissue repair and regeneration in a subject comprising contacting an injured tissue with a composition comprising a peptide selected from the group consisting of:

(a) a peptide comprising a sequence

(Q/R)X₁(L/P)SY(K/R)(E/D)AVLRA(V/I)X₂X₃X₄N(E/Q)(Q/R)S(S/L)

(D/E)X₅NLYRLLX₆L(D/N)X₇X₈PX₉X₁₀(D/E)X₁₁DPX₁₂(T/I)(P/R)K(P/S)V

(S/R)F(T/R)VKETVC(P/G)(K/R)X₁₃(T/E)(Q/R)QX₁₄(P/L)EX₁₅CX₁₆FKX₁₇

X₁₈G(L/R)VK(Q/R)CX₁₉G(A/T)V(T/I)L(D/N)X₂₀X₂₁X₂₂X₂₃X₂₄(F/L)D(I/L)(N/S)C(N/D)X₂₅
X₂₆X₂₇X₂₈X₂₉X₃₀X₃₁ (SEQ ID NO:3),

wherein X₁ is A, V or T; X₂ is N, D or G; X₃ is G, R, D or Q; X₄ is L, I or F; X₅ is E, A or T; X₆ is Q, E or D; X₇ is S, Q or P; X₈ is Q, P, R, E or A; X₉ is K, T, Q or N; X₁₀ is G, A, M or D; X₁₁ is G, E or V; X₁₂ is N, G or D; X₁₃ is P, T or A; X₁₄ is P, S or L; X₁₅ is Q, L, D or E; X₁₆ is G, D or A; X₁₇ is D, E or K; X₁₈ is N, D or Q; X₁₉ is E, V or M; X₂₀ is E, P or Q; X₂₁ is D, S or A; X₂₂ is T, I, R, A or N; X₂₃ is G, H or D; X₂₄ is S, Y or Q; X₂₅ is S, E or K; X₂₆ is I, D, A or L; X₂₇ is L, Q or N; X₂₈ is S, P, K or Q; X₂₉ is V, F or R; X₃₀ is R, F or K; and X₃₁ is F, A, R or K; and

(b) a peptide comprising a sequence as set forth in SEQ ID NO:2 from about amino acid 31 to 131.

22. (New) A method for inhibiting the growth of a bacterium or yeast comprising contacting the bacterium or yeast with an inhibiting effective amount of a peptide consisting essentially of an amino acid sequence as set forth in SEQ ID NO:2 from about amino acid 31 to 131.